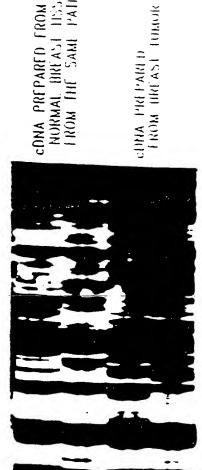
CONA PREPARED FROM NORMAL BREAST HISSUL FROM THE SAME PATHERE



B18Ag1

NORMAL BREAST TISSUE MRNA

BREAST TUMOR MRNA



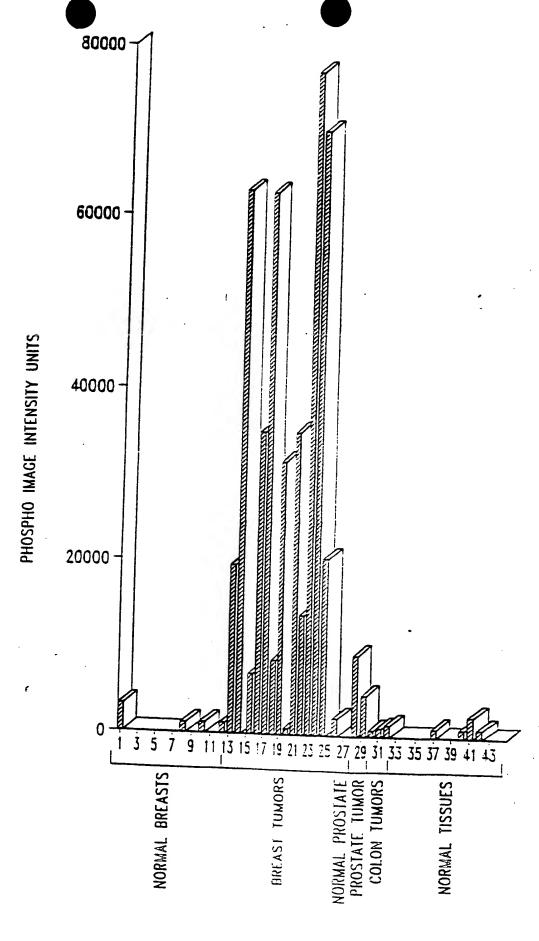
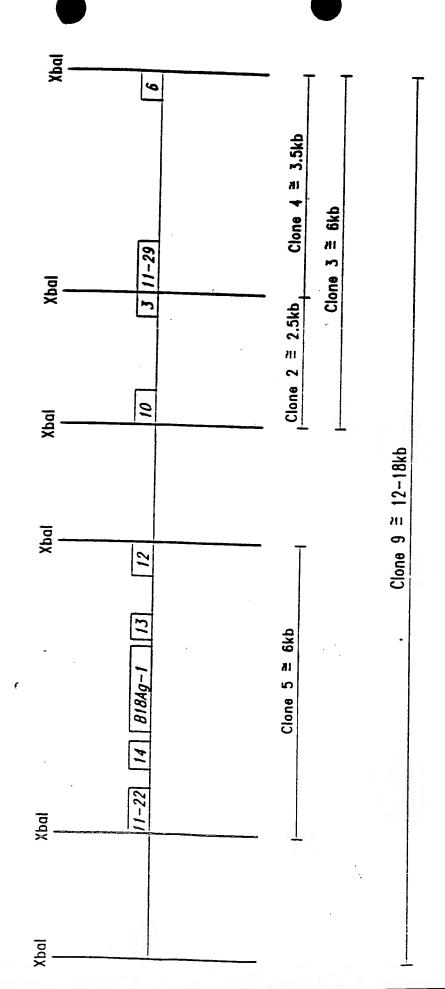
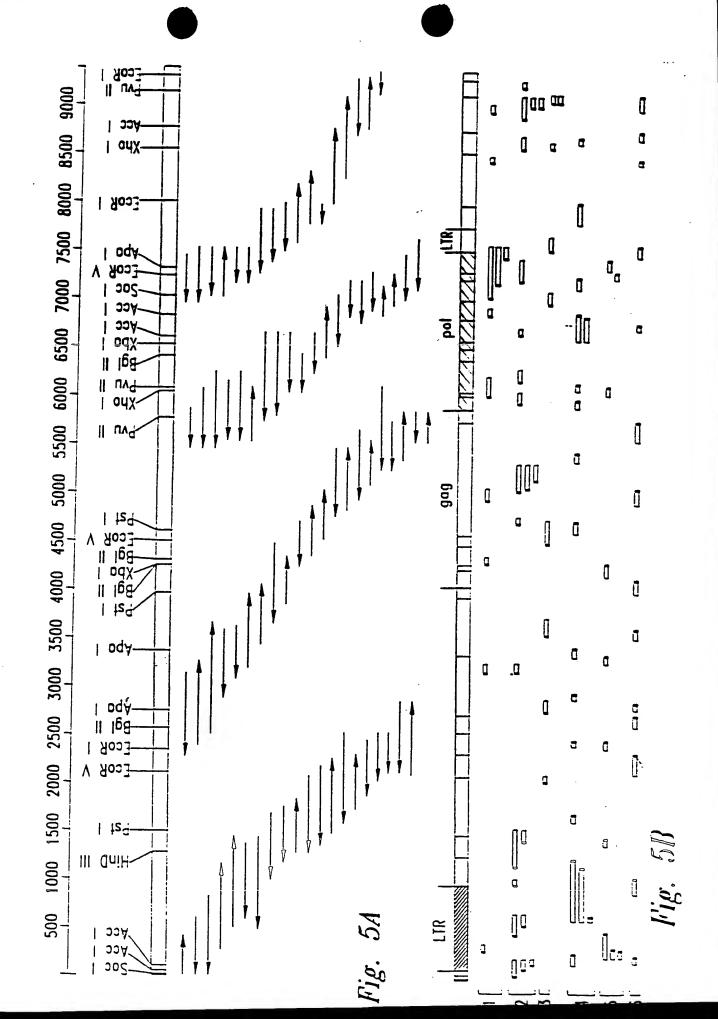


Fig. 3

GENOMIC CLONE MAP





NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC cDNA 818Ag1

TTA Leu 1	GAG Glu	ACC Thr	CAA Gln	TTG Leu 5	GGA Gly	CCT Pro	AAT Asa	TGG Trp	GAC Asp 10	CCA Pro	AAT Asn	TTC Phe	TCA Ser	AGT Ser 15	GGA Gly	48
GGG Gly	AGA Arg	ACT Thr	TTT Phe 20	GAC Asp	GAT Asp	TTC Phe	CAC	CGG Arg 25	TAT Tyr	CTC Leu	CTC Leu	GTG Val	GGT Gly 30	ATT	CAG Gln	96
GGA Gly	GCT	GCC Ala 35	CAG Gln	AAA Lys	CCT Pro	ATA	AAC Asn 40	TTG Leu	TCT Ser	AAG Lys	GCG Ala	ATT Ile 45	GAA Glu	GTC Val	GTC Val	144
CAG Gln	GGG Gly 50	CAT His	GAT Asp	GAG Glu	TCA Ser	CCA Pro 55	GGA Gly	GTG Val	TTT Phe	TTA Leu	GAG Glu 60	CAC His	CTC Leu	CAG Gin	GAG Glu	192
GCT Ala 65	TAT Tyr	CGG Arg	ATT	TAC Tyr	ACC Thr 70	CCT Pro	TTT Phe	GAC Asp	CTG Leu	GCA Aia 75	GCC Ala	CCC Pro	GAA Glu	AAT Asa	ACC Ser 08	240
CAT His	GCT Ala	CTT Leu	AAT Asn	TTG Leu 85	GCA Ala	TTT Phe	GTG Val	GCT Ala	CAG Gln 90	GCA Ala	GCC Ala	CCA Pro	GAT Asp	AGT Ser 95	AAA Lys	288
AGG Arg	AAA Lys	CTC Leu	CAA Gln 100	AAA Lys	CTA Leu	GAG Glu	GGA Gly	TTT Phe 105	TGC Cys	TGG Trp	AAT Asa	GAA Glu	TAC Tyr 110	CAG Gln	TCA Ser	336
GCT Ala	TTT Phe	AGA Arg 115	GAT Asp	AGC Ser	CTA Leu	AAA Lys	GGT Gly 120	TTT Phe				•				363

NUCLEOTIDE SEQUENE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CONA 817Ag1

GC	TGGGCACAGT	GGCTCATACC	TGTAATCCTG	ACCGTTTCAG	AGGCTCAGGT	60
CG	CTTGAGCCCA	AGATTTCAAG	ACTAGTCTGG	GTAACATAGT	GAGACCCTAT	120
AA	AAATAAAAA	ATGAGCCTGG	TGTAGTGGCA	CACACCAGCT	GAGGAGGGAG	180
СТ	AGGAGA					196

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CONA 817Ag2

GC	TTGGGGGCTC	TGACTAGAAA	TTCAAGGAAC	CTGGGATTCA	AGTCCAACTG	60
AC	TTACACTGTG	GNCTCCAATA	AACTGCTTCT	TTCCTATTCC	CTCTCTATTA	120
AA	GGAAAACGAT	GTCTGTGTAT	AGCCAAGTCA	CNTATCCTAA	AAGGAGATAC	180
	TAAATATCAG					240
CA	AGAAGACTGA	ACAGTACTAC	TGTGAAAAGC	CEGAAGNGGC	AATATGTTCA	300
	GAAGGATGGC					360
	CCTTTATAGC					388

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC cDNA 813Ag2a

GC	CTATAATCAT	GTTTCTCATT	ATTTTCACAT	TTTATTAACC	AATTTCTGTT	60
AA	AATATGAGGG	AAATATATGA	AACAGGGAGG	CAATGTTCAG	ATAATTGATC	120
TG	ATTTCTACAT	CAGATGCTCT	TTCCTTTCCT	GTTTATTTCC	TTTTTATTTC	180
GG	TCGAATGTAA	TAGCTTTGTT	TCAAGAGAGA	GTTTTGGCAG	TTTCTGTAGC	240
		CCAGGCATCT				300
		TATTTGGGCA			·	337

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC cDNA 813Ag1b

GC	CATACAGTG	CTTTCCATTT	ATTTAACCCC	CACCTGAACG	GCATAAACTG	60
GC	TGGTGTTTT	TACTGTAAAC	AATAAGGAGA	CTTTGCTCTT	CATTTAAACC	120
ΑT	TTCATATTT	ACGCTCGAGG	GTTTTTACCG	GTTCCTTTTT	ACACTCCTTA	180
TT	TAAGTCGTTT	GGAACAAGAT	ATTTTTTCTT	TCCTGGCAGC	TTTTAACATT	240
TT	TGTGTCTGGG	GGACTGCTGG	TCACTGTTTC	TCACAGTTGC	AAATCAAGGC	300
CC	AAGAAAAAA	AATTTTTTTG	TTTTATTIGA	AACTGGACCG	GATAAACGGT	360
CG	GCTGCTGTAT	ATAGTTTTAA	ATGGTTTATT	GCACCTCCTT	AAGTTGCACT	420
3G	GGGGNTTTTG	NATAGAAAGT	NTTTANTCAC	ANAGTCACAG	GGACTTTTNT	480
IA I	CTGAGCTAAA	AAGGGCTGNT	TTTCGGGTGG	GGGCAGATGA	AGGCTCACAG	540
.C	TCTTAGAGGG	GGGAACTNCT	A			571

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC cDNA 813Ag1a

TA	ATAACTTAAA	TATATTTTGA	TCACCCACTG	GGGTGATAAG	ACAATAGATA	60
TT	TCCAAAAAGC	ATAAAACCAA	AGTATCATAC	CAAACCAAAT	TCATACTGCT	120
CC	GCACTGAAAC	TTCACCTTCT	AACTGTCTAC	CTAACCAAAT	TCTACCETTC	180
GG	TGCGTGCTCA	CTACTCTTTT	ווזווווווו	TTTNTTTTGG	AGATGGAGTC	240
CA	GCCCAGGGGT	GGAGTACAAT	GGCACAACCT	CAGCTCACTG	NAACCTCCGC	300
TT	CATGAGATTC	TCCTGNTTCA	GCCTTCCCAG	TAGCTGGGAC	TACAGGTGTG	360
TG	CCTGGNTAAT	CTTTTTTNGT	TTTNGGGTAG	AGATGGGGGT	TTTACATGTT	420
TG	GTNTCGAACT	CCTGACCTCA	AGTGATCCAC	CCACCTCAGG	CTCCCAAAGT	480
TΑ	CAGACATGAG	CCACTGNGCC	CAGNCCTGGT	GCATGCTCAC	TTCTCTAGGC	540
						548

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CONA B11Ag1

TG CACATGCAGA	ATATTCTATC	GGTACTTCAG	CTATTACTCA	TTTTGATGGC	60
AG CCTATCCTCA A	AGATGAGTAT	TTAGAAAGAA	TTGATTTAGC	GATAGACCAA	120
GC ACTCTGACTA	CACGAAATTG	TTCAGATGTG	ATGGATTTAT	GACAGTTGAT	180
GA GATTATTAAG T	GATTATTTT	AAAGGGAATC	CATTAATTCC	AGAATATCTT	240
TC AAGATGATAT A	GAAATAGAA	CAGAAAGAGA	CTACAAATGA	AGATGTATCA	300
TA TTGAAGAGCC T	ATAGTAGAA	AATGAATTAG	CTGCATTTAT	TAGCCTTACA	360
TT TTCCTGATGA A	TCTTATATT	CAGCCATCGA	CATAGCATTA	CCTGATGGGC	420
GA ATAATAGAAA C	TGGGTGCGG	GGCTATTGAT	GAATTCATCC	NCAGTAAATT	480
AC AAAATATAAC TO	CGATTGCAT	TTGGATGATG	GAATACTAAA	TCTGGCAAAA	540
GG AGCTACTAGT AA	ACCTCTCTT	TTTGAGATGC	AAAATTTTCT	TTTAGGGTTT	600
CT ACTITACGGA TA	ATTGGAGCA	TAACGGGA			638

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CONA B3CA3c

ACTGATGGAT	GTCGCCGGAG	GCGAGGGGCC	TTATCTGATG	CTCGGCTGCC	TGTTCGTGAT	60
GTGCGCGGCG	ATTGGGCTGT	TTATCTCAAA	CACCGCCACG	GCGGTGCTGA	TGGCGCCTAT	120
TGCCTTAGCG	GCGGCGAAGT	CAATGGGCGT	CTCACCCTAT	CCTTTTGCCA	TGGTGGTGGC	180
GATGGCGGCT	TCGGCGGCGT	TTATGACCCC	GGTCTCCTCG	CCGGTTAACA	CCCTGGTGCT	240
TGGCCCTGGC	AAGTACTCAT	TTAGCGATTT	TGTCAAAATA	GGCGTG		286

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CONA 89CG1

AG	CAGCCCCTTC	TTCTCAATTT	CATCTGTCAC	TACCCTGGTG	TAGTATCTCA	60
CA	TTTTTATAGC	CTCCTCCCTG	GTCTGTCTTT	TGATTTTCCT	GCCTGTAATC	120
AC	ATAACTGCAA	GTAAACATTT	CTAAAGTGTG	GTTATGCTCA	TGTCACTCCT	180
AA	ATAGTTTCCA	TTACCGTCTT	AATAAAATTC	GGATTTGTTC	TTTNCTATTN	240
CA	CCTATGACCG	AA				262

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CDNA B9CG3

AG	CAAAGCCAGT	GGTTTGAGCT	CTCTACTGTG	TAAACTCCTA	AACCAAGGCC	60
TA	AATGGTGGCA	GGATTTTTAT	TATAAACATG	TACCCATGCA	AATTTCCTAT	120
GA	TATATTCTTC	TACATTTAAA	CAATAAAAAT	<u>AAŤCTATTT</u>	TAAAAGCCTA	180
AG	TTAGGTAAGA	GTGTTTAATG	AGAGGGTATA	AGGTATAAAT	CACCAGTCAA	240
TG	CCTATGACCG	A				261

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CONA B2CA2

GG	GCATGGACGC	AGACGCCTGA	CGTTTGGCTG	AAAATCTTTC	ATTGATTCGT	60
AT	AGGAAAATTC	CCAAAGAGGG	AATGTCCTGT	TGCTCGCCAG	TTTTTNTGTT	120
GG	ANAAGGCAAN	GAGCTCTTCA	GACTATTGGN	ATTNTCGTTC	GGTCTTCTGC	180
CG	NCTTGCNANG	ATCTTCAT				208

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC COMA B3CA1

GG	GCATGGACGC	AGACGCCTGA	CGTTTGGCTG	AAAATCTTTC	ATTGATTCGT	60
AT	AGGAAAATTC	CCAAAGAGGG	AATGTCCTGT	TGCTCGCCAG	TTTTTNTGTT	120
GG	ANAAGGCAAN	GAGCTCTTCA	GACTATTGGN	ATTNTCGTTC	GGTCTTCTGC	180
CG	NCTTGCNANG	ATCTTCAT				208

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CONA 83CA2

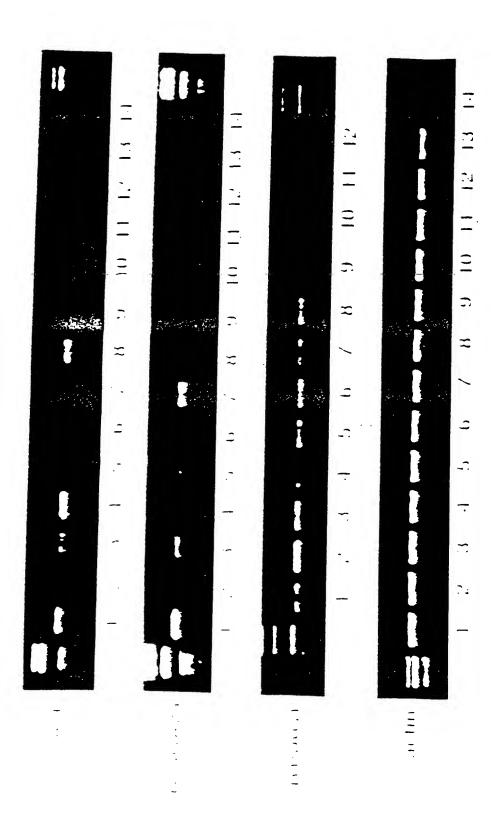
GG	GCATGGACGC	AGACGCCTGA	CGTTTGGCTG	AAAATCTTTC	ATTGATTCGT	60
AT	AGGAAAATTC	CCAAAGAGGG	AATGTCCTGT	TGCTCGCCAG	TTTTTNTGTT	120
GG	ANAAGGCAAN	GAGCTCTTCA	GACTATTGGN	ATTNTCGTTC	GGTCTTCTGC	180
CG	NCTTGCNANG	ATCTTCAT				208

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CONA B3CA3

AG	GGAGCAAGGA	GAAGGCATGG	AGAGGETCAN	GCTGGTCCTG	GCCTACGACT	6
CT	GTCGCCGGGG	ATGGTGGAGA	ACTGAAGCGG	GACCTCCTCG	AGGTCCTCCG	120
TC	NCCGTCCAGG	AGGAGGTCT	TTCCGTGGTC	TNGGAGGAGC	GGGGGGAGAA	180
TC	ATGGTCNACA	TCCC				204

NUCLEOTIDE SEQUENCE OF THE REPRESENTATIVE BREAST-TUMOR SPECIFIC CONA 84CA1

TC	AGGAGCGGGT	AGAGTGGCAC	CATTGAGGGG	ATATTCAAAA	ATATTATTTT	60
TG	ATAGTTGCTG	AGTTTTTCTT	TGACCCATGA	GTTATATTGG	AGTTTATTTT	120
CC	AATCGCATGG	ACATGTTAGA	CTTATTTTCT	GTTAATGATT	NCTATTTTTA	180
GA	TTTGAGAAAT	TGGTTNTTAT	TATATCAATT	TTTGGTATTT	GTTGAGTTTG	240
GC	TTAGTATGTG	ACCA			~.	254



Pig. 21A

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Fig. 21B

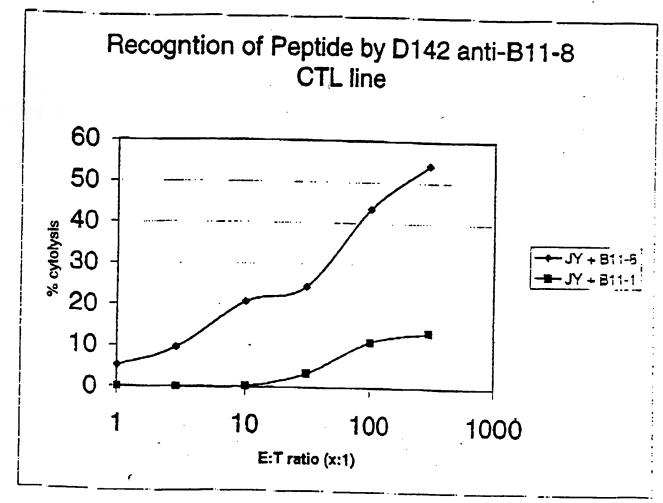
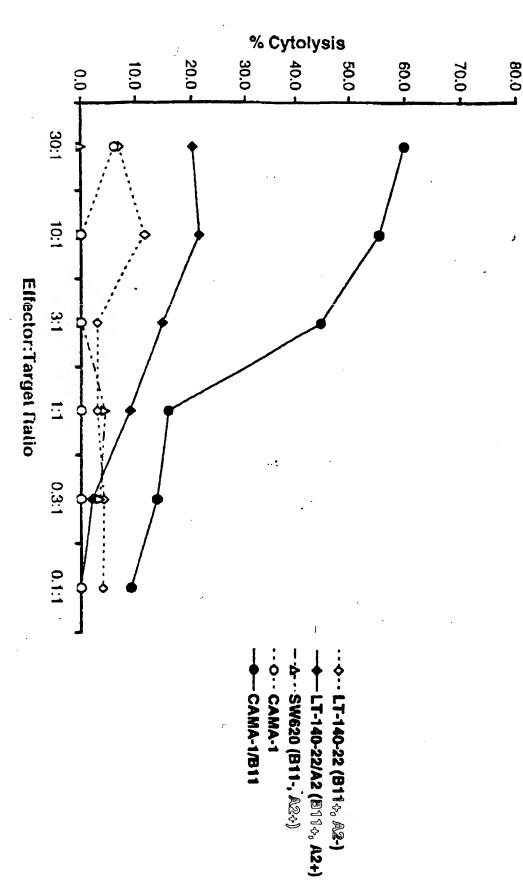


Fig. 22

Fig. 23

Recgonition of Tumor Cell Lines by Clone A1



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